

Work Order ID 159136

Wednesday, April 05, 2017 8:55:34 AM

159136

Page 1

Item ID: 601.3083 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Adhesive Rubber Seal
Start Date: 4/6/2017 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 4/12/2017 Req'd Qty: 4.00 ***4*** Customer:
Reference: DAS 13 9-89

Approvals: Process Plan: _____ Date: APR 05 2017 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
647.3700	n/c

110

0.00

APR 06 2017

110

Purchasing

Memo

0.00

Purchasing

Issue P/O: 35878
Possible supplier: McMaster Carr
Supplier P#: 86715K27
note: 60A durometer required
Material release note is required.

4DAS 13 9-89

120

Receive & Inspect for Damage & Mat'l Certs

0.00

120

Packaging

Memo

0.00

Packaging

4 SP17-4-11.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Work Order ID 159136***159136***

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Item ID: 601.3083 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Adhesive Rubber Seal
Start Date: 4/6/2017 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 4/12/2017 Req'd Qty: 4.00 ***4*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				4			DAS 38 9-89 APR 11 2017
140 *140* Packaging Packaging	Receive & Inspect for Damage & Mat'l Certs Memo	0.00 0.00				4			DAS 6 9-89 APR 13 2017
150 *150* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							17/4/19 JF DAS 21 9-89 2017/04/18

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified ☐	☐	Past Due	☐				

Picklist Print

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Page 1

Work Order ID: 159136

159136

Parent Item: 601.3083

601 3083

Parent Item Name: Adhesive Rubber Seal

Start Date: 4/6/2017

Required Date: 4/12/2017

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A 12.10.27 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
86715K27		Purchased	No			120	Each	0.0000	1	4			

86715K27

Adhesive Rubber Seal 60A durometer

**

4 8017-4-11.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

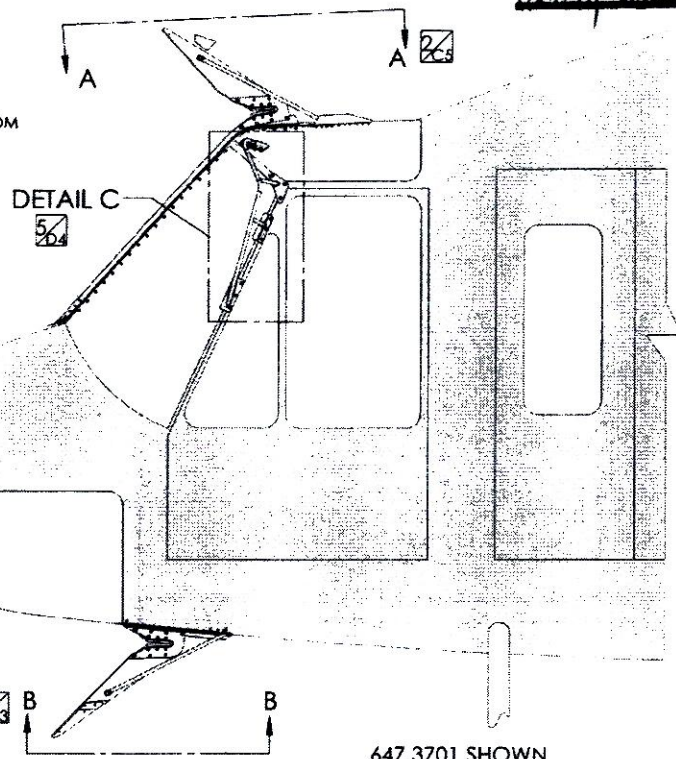
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UNINCORPORATED ECM(s)

07228, 04845, 048801

NOTES:

- 1 AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.
- 2 IF REQ'D, USE F/N 32 TO CONNECT CO-AXIAL CABLE.
- 3 VENDOR : ONLINECOMPONENTS.COM
- 4 AT CUSTOMERS OPTION, INSTALL F/N 56 BY MATCH DRILLING ONTO F/N 1 OR F/N 2.
- 5 APPLY F/N 55 TO FAYING SURFACES.
- 6 VENDOR : MCMMASTER-CARR
VENDOR P/N: 86715K27
60A DUROMETER



REF	REF	REF	REF	56	647.3701	GPS MOUNT KIT		
A/R	A/R	A/R	A/R	55	601.2045	RTV	LOCITE 988	
A/R	A/R	A/R	A/R	54	601.1012	SEALANT	3M 1225 CLASS 8	
1	1	1	1	53	601.3083	ADHESIVE RUBBER SEAL	MIL-R-3065	
4	4	4	4	52	601.2957	NUTPLATE	MS2107113	
4	4	4	4	51	600.0795	NUTPLATE	MS210473	
6	6	6	6	50	601.3066	NUTPLATE	MS2104708	
6	6	6	6	49	601.3065	NUTPLATE	MS2104708	
18	18	18	18	48	601.2973	LOCKNUT	MS2104258	
79	79	79	79	47	601.2943	LOCKNUT	MS210429	
4	4	4	4	46	601.2364	CHERRY RIVET	CR3213-4-8	
28	28	42	42	45	601.1183	CHERRY RIVET	CR3213-4-5	
16	16	19	19	44	601.1915	CHERRY RIVET	CR3213-4-4	
24	24	32	32	43	601.0790	CHERRY RIVET	CR3213-4-3	
31	31	13	13	42	601.1039	CHERRY RIVET	CR3213-4-2	
3704	3703	3702	3701	FIN	PART #	DESCRIPTION	MATL	SPEC.

16	16	16	16	41	601.2207	NUTPLATE RIVET	CC9264SS-3-03	
12	12	12	12	40	601.2491	NUTPLATE RIVET	CC9264SS-3-04	
7	7	4	4	39	601.1066	CHERRY RIVET	CR3212-4-4	
17	17	17	17	38	601.1065	CHERRY RIVET	CR3212-4-3	
5	5	6	6	37	601.1604	CHERRY RIVET	CR3212-4-2	
6	6	6	6	36	601.3082	CHERRY RIVET	CR3212-4-1	
2	2	2	2	35	601.1874	BOLT	AN3C 10A	
8	8	8	8	34	601.2826	BOLT	AN3-11A	
3	3	3	3	33	601.2823	BOLT	AN3-4A	
1	1	1	1	32	601.3073	CONNECTOR	087-4440	
8	8	8	8	31	601.2419	SCREW	MS2489AC53	
1	1	1	1	30	601.3070	SCREW	MS2469A-545	
2	2	2	2	29	601.2893	SCREW	MS27039-08-1	
14	14	14	14	28	601.3069	SCREW	MS27039-1-09	
16	16	16	16	27	601.2263	SCREW	MS27039-0808	
42	42	42	42	26	601.1365	SCREW	MS27039-1-10	
12	12	12	12	25	601.2198	SCREW	MS27039-1-07	
157	157	157	157	24	601.1607	WASHER	MS21149F0302P	
34	34	34	34	23	601.2764	WASHER	MS21149F0302P	
1	1	1	1	22	647.4313	RH UPPER STRUT		
1	1	1	1	21	647.4312	LH UPPER STRUT		
1	1	1	1	20	647.4310	LH LOWER STRUT		
1	1	1	1	19	647.4311	RH LOWER STRUT		
1	1	1	1	18	647.4212	PLATE		
1	1	1	1	17	647.4211	BRACKET RH		
1	1	1	1	16	647.4210	BRACKET LH		
1	1	1	1	15	647.4116	SHIM		
2	2	2	2	14	647.4115	SHIM		
2	2	2	2	13	647.4114	SHIM		
1	1	1	1	12	647.4113	CLIP		
1	1	1	1	11	647.4112	CLIP		
1	1	1	1	10	647.4111	DOUBLER		
1	1	1	1	9	647.4110	DOUBLER		
1	1	1	1	8	647.4011	WIPER DEFLECTOR LH		
1	1	1	1	7	647.4010	WIPER DEFLECTOR RH		
1	1	1	1	6	647.3915	DEFLECTOR		
1	1	1	1	5	647.4410	RAIL		
1	1	1	1	4	647.3804	LOWER CUTTER ASSY HIGH		
1	1	1	1	3	647.3803	LOWER CUTTER ASSY LOW		
1	1	1	1	2	647.3802	212 UPPER CUTTER ASSY		
1	1	1	1	1	647.3801	412 UPPER CUTTER ASSY		
					647.3704	204, 205, 212 CABLE CUTTERS KIT HIGH		
					647.3703	204, 205, 212 CABLE CUTTERS KIT LOW		
					647.3702	412 CABLE CUTTERS KIT HIGH		
					647.3701	412 CABLE CUTTERS KIT LOW		
3704	3703	3702	3701	FIN	PART #	DESCRIPTION	MATL	SPEC.

QTY	NEXT ASSY (S)	ORIGINAL DATE 1/20/2017	DESIGNED BY J. JACKSON	CHECKED BY D. BARNES	DATE 1/20/2017
		DRAWING APPROVAL (Signature)			
		CONTRACT NO.			
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DIMENSIONS ARE TO BE SHOWN UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			
		PARTS LIST			
		APICAL INDUSTRIES			
		2408 TEMPLE HEIGHTS DR.			
		OCEANSIDE, CA. 92056-3512 (760)724-5300			
		412 CABLE CUTTERS KIT			
		SHEET 1 OF 3			

APR 05 2017
W10: 159136



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO35878

Purchase Order Date 4/6/2017
PO Print Date 4/6/2017

Page Number 1 of 5

Order From :

VU-MCM001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

MCMASTER-CARR SUPPLY CO,
P.O. BOX 7690
CHICAGO, IL 60680-7690
US

E-MAILED
APR 06 2017

Contact Name

Vendor Phone

330 995 5500

Ship To Contact

Ship To Phone

Ship Via:

Purolator ground ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 10

Currency

USD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
	Line Comments		Promise Date				
	Delivery Comments						
1	86715K27	Adhesive Rubber Seal 60A durometer	4/10/2017		4.00	\$16.73	\$66.92
			Yes		Each		
			4/10/2017				
	AS PER DWG 601.3083 B159136						
						Line Total:	\$66.92
2	6605K56	HOOK AND LOOP TIE	4/10/2017		15.00	\$2.94	\$44.16
			Yes		Each		
			4/10/2017				
	AS PER DWG D3551 REV. A B159133						
						Line Total:	\$44.16

Note:

4/6/2017



200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO35878
Order Placed By
Chantal Lavoie

McMaster-Carr Number
1560781-01

Page 1 of 1
04/06/2017

Line	Product	Ordered	Shipped
1	86715K27 High-Strength Oil-Resistant Buna-N Rubber Sheet Adhesive Back, 1/16" Thick, 12" X12", 60A Durometer	4 Each	4
12	1372N35 Multipurpose Neoprene Rubber Strip with Certificate, 2" x 36", 1/8" Thick, 50A Durometer	15 Each	11

DAS
38
9-89

SP174-V

Shipped separately from our Cleveland warehouse on 04/06

2	6605K56 Hook and Loop Cable Ties 24" Overall Length, Meets UL 94V2	3 Packs	3
3	95606A170 Nylon Plastic Washer for 7/16" Screw Size, 0.5" ID, 0.688" OD, Off-White	1 Pack	1
4	30365T35 Eye-to-Clevis Swivel - Not for Lifting 316 Stainless Steel, 5-3/4" Long	4 Each	4
5	59915K274 PTFE-Lined Stainless Steel Ball Joint Rod End 3/8"-24 RH Male Shank, 3/8" Ball ID, 1-1/4" Long Thread	10 Each	10
6	98470A133 18-8 Stainless Steel Shoulder-Style Quick-Release Pin Ring Grip, 1/4" Diameter, 1.3" Usable Length	10 Each	10
7	29045A777 Long-Life TiN-Coated High-Speed Steel Jobbers' Drill Bit Wire Gauge 52, 1-7/8" Overall Length, 0.8" Drill Depth, 135Deg Point	3 Each	3
8	91251A353 Black-Oxide Alloy Steel Socket Head Screw 10-32 Thread Size, 2" Long, Partially Threaded	6 Packs	6
9	6713A22 220 Grit Stone Set for 11/16" - 2-1/2" ID Flexible Precision-Finish Cylinder Hone	1 Each	1
10	3099K42 Digital Food and Beverage Pocket Thermometer	1 Each	1
11	7509A82 Gasketing Adhesive 3M 1300L, 32 oz. Can	3 Each	3
12	1372N35 Multipurpose Neoprene Rubber Strip with Certificate, 2" x 36", 1/8" Thick, 50A Durometer	15 Each	4